What Is Claimed Is:

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1   1.   An intelligent service network, comprising:

2   a programmable switch; and

3   a switch controller coupled to said programmable switch.

1   2.   The intelligent service network of claim 1, further comprising:

2   an intelligent service network component coupled to said switch

3   controller.

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1   3.   The intelligent service network of claim 2, wherein said switch

2   controller comprises:

3   a programmable switch support means for providing an interface

4   to said programmable switch;

5   a call control means for establishing a connection between two

6   ports on said programmable switch; and

7   a service control means for interfacing with said intelligent service

8   network component.

1   4.   The intelligent service network of claim 3, wherein said switch

2   controller further comprises:

3   a resource control means for allocating resources.

1   5.   The intelligent service network of claim 3, wherein said switch

2   controller further comprises:

3   a management interface means for providing an interface to

4   external management systems.

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1   6.   The intelligent service network of claim 1, wherein said

2   programmable switch is one of:

3   a programmable switch; or

4   a digital exchange.

1   7.   The intelligent service network of claim 2, wherein said intelligent

2 service network component is one of:

3   a manual operator console;

4   an automated response unit;

5   a service switching control point; or

6   a protocol converter.

1   8.   The intelligent service network of claim 2, wherein said intelligent

2 service network component is one of:

3   a means for access data; or

4   a means for interfacing with a caller.

1   9.   The intelligent service network of claim 2, wherein said intelligent

2 service network component is one of:

3   a network information distribution system database coupled to said

4 switch controller via a network information distribution system server;

5   an applications database;

6   a data distribution system database; or

7   a mainframe database.

1   10.   The intelligent service network of claim 2, further comprising:

2   a system management system coupled to said switch controller.

1   11.   The intelligent service network of claim 1, further comprising:

2   a force management system coupled to said switch controller.

1   12.   The intelligent service network of claim 1, further comprising:

2   a configuration and provisioning system coupled to said switch

3   controller.

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1   13.   An intelligent service network, comprising:

2   a plurality of programmable switches; and

3   a switch controller coupled to said plurality of programmable

4   switches.

1   14.   The intelligent service network of claim 13, further comprising:

2   a plurality of intelligent service network components coupled to

3   said switch controller.

1   15.   The intelligent service network of claim 13, further comprising

2   one of:

3   a system management system coupled to said switch controller;

4   a force management system coupled to said switch controller; or

5   a configuration and provisioning system coupled to said switch

6   controller.

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1   16.   An intelligent service network, comprising:

2   one or more switch controllers; and

3   one or more intelligent service network components coupled to at

4   least one of said one or more switch controllers.

1   17.   A network, comprising:

2   a plurality of programmable switches; and

3   a plurality of switch controllers, wherein each of said plurality of

4   switch controllers is coupled to at least one of said plurality of said programmable

5   switches.

1   18.   An intelligent service network environment, comprising:

2   one or more programmable switches coupled to a public switch

3   telephone network, wherein said public switch telephone network is coupled to

4   a calling device;

5   one or more switch controllers, wherein each of said one or more

6   switch controllers is coupled to at least one of said one or more programmable

7   switches;

8   one or more intelligent service network components, wherein each

9   of said one or more intelligent service network components is coupled to at least

10   one of said one or more switch controllers.

1   19.   The intelligent service network environment of claim 18, further

2   comprising:

3   one or more external networks and resources, wherein each one of

4   said one or more external networks and resources is coupled to at least one of said

5   one or more intelligent service network components.

1   20.   A messaging interface, comprising:

2   a means for communicating with a programmable switch using

3   programmable switch interface messages; and

4   a means for communicating with an intelligent service network

5   component using transmission control messages.

1   21.   The messaging interface of claim 20, further comprising:

2   a means for communicating with a system management system

3   using system management messages.

1   22.   The messaging interface of claim 20, further comprising:

2   a means for communicating with a force management system

3   using force management messages.

1   23.   A method for setting up a call to an intelligent service network

2   component comprising the steps of:

3   (a)   receiving by a switch controller from a programmable

4   switch a first programmable switch application programmer interface message to

5   request service indicating an initial address message was received from a public

6   switched telephone network;

7   (b)   sending a second programmable switch application

8   programmer interface message to command a programmable switch to send an

9   address complete message to said public switched telephone network;

10   (c)   sending a transmission control message to the intelligent

11   service network component;

12   (d)   receiving a transmission control response message from the

13   intelligent service network component;

14   (e)   sending a third programmable switch application

15   programmer interface message to said programmable switch requesting sending

16   of an answer message to said public switched telephone network; and

17   (f)   sending a fourth programmable switch application

18   programmer interface message to said programmable switch requesting

19   connection of a circuit.

1   24.   The method of claim 23, further comprising the following steps

2   performed before step (a):

3   receiving by an originating switch controller from an originating

4   programmable switch a first originating programmable switch application

5   programmer interface message to request service indicating an initial address

6   message was received from a public switched telephone network;

7   determining that said originating switch controller cannot select

8   the intelligent service network component; and

9   obtaining an intermachine trunk facility between said originating

10   programmable switch and said programmable switch.

1   25.   A method for setting up a call originated via a public switched

2   telephone network to an intelligent service network component, comprising the

3   steps of:

4   receiving a request for facilities to provide service for the call;

5   selecting by a switch controller the intelligent service network

6   component;

7   commanding by said switch controller a programmable switch to

8   provide connections and signal to a public switched telephone network to connect

9   the call to the intelligent service network component; and

10   sending by said switch controller a call offered signal to the

11   intelligent service network component.

1   26.   A method for connecting a call from an intelligent service network

2   component to a terminating party via a public switched telephone network,

3   comprising the steps of:

4   receiving by a switch controller from the intelligent service

5   network component a request to connect the call to the terminating party

6   indicating a type of the call;

7   commanding a programmable switch to attain facilities via the

8   public switched telephone network to the terminating party; and

9   receiving from said programmable switch a message indicating

10   that said facilities have been obtained.

27.   A method for disconnecting a call established between a public switched telephone network and an intelligent service network component, comprising the steps of:

receiving by a switch controller a termination signal obtained from a calling device interconnected to the public switched telephone network indicating that the call is being terminated;

notifying the intelligent service network component that the established call is being terminated; and

commanding by a switch controller a programmable switch to release the call.

28.   The method of claim 27, further comprising the steps of:

commanding said programmable switch to park channels associated with an originating party and the intelligent service network component;

sending the intelligent service network component a call offered message indicating a reorigination request was received from the public switched telephone network; and

commanding said programmable switch to connect the originating party and the intelligent service network component;

wherein said termination signal is a reorigination signal.

29.   A method for transferring a call connected between a public switched telephone network and a first intelligent service network component from the first intelligent service network component to a second intelligent service network component, comprising the steps of:

receiving from the first intelligent service network component a request to transfer the call;

commanding a programmable switch to park the channel of the call while the call is being transferred;

9   selecting by a switch controller the second intelligent service

10   network component;

11   sending by said switch controller a call offered signal to the second

12   intelligent service network component; and

13   commanding by said switch controller a programmable switch to

14   provide connections and signal to a public switched telephone network to connect

15   the call to the second intelligent service network component.

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